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In the Claims

For the convenience of the Examiner, all pending claims are set forth below, whether or not an amendment is made. Please amend the claims as follows:

1.   (Currently Amended)   A system for identifying relationships between database records, comprising:

a memory operable to store a plurality of records comprising a first record and at least one second record, each record comprising at least one of a plurality of tokens; and

one or more processors collectively operable to:

determine a weight associated with each of the tokens;

generate a correlithm object associated with at least one of the tokens, the correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points;

generate a significance vector associated with the correlithm object;

compare at least one second record to the first record; and

determine at least one relationship indicator based on the comparison and at least one of the weights, the at least one relationship indicator identifying a level of relationship between the first record and at least one second record.

2.   (Original) The system of Claim 1, wherein the weight associated with one of the tokens is inversely proportional to a number of times that the token appears in the plurality of records.

3.   (Original) The system of Claim 1, wherein the one or more processors are collectively operable to determine the weight associated with one of the tokens using a formula of:

$$Weight = -\log\left(\frac{Count_{Token}}{Total_{Token}}\right)$$

where $Count_{Token}$ represents a number of times that the token appears in the plurality of records, and $Total_{Tokens}$ represents a number of times that all tokens appear in the plurality of records.

4.   (Currently Amended)   The system of Claim 1, wherein the one or more processors are collectively operable to compare one of the second records to the first record by:

identifying any common tokens, a common token comprising one of the tokens that appears in both the first record and the second record; and

identifying a common count value for each common token, the common count value representing a minimum number of times that the common token appears in ~~either~~ the first ~~record or~~ record and the second record.

5.   (Original)   The system of Claim 1, wherein the relationship indicator associated with one of the second records when compared to the first record is determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{j} (\text{Weight}_{\text{Token } i} * \text{Common Count}_{\text{Token } i})}{\text{Score}_{\text{Target Record}}}$$

where j represents a number of unique common tokens that appear in both the first record and the second record, $\text{Weight}_{\text{Token } i}$ represents the weight associated with the ith common token, $\text{Common Count}_{\text{Token } i}$ represents a minimum number of times that the ith common token appears in either the first record or the second record, and $\text{Score}_{\text{First record}}$ represents a record score associated with the first record.

6.   (Original)   The system of Claim 5, wherein the record score associated with the first record is determined using a formula of:

$$\text{Record Score} = \sum_{i=1}^{k} \left(\text{Weight}_{\text{Token } k} * \text{Count}_{\text{Token } k} \right)$$

where k represents a number of unique tokens associated with the first record, $\text{Weight}_{\text{Token } k}$ represents the weight associated with the kth unique token, and $\text{Count}_{\text{Token } k}$ represents a number of times that the kth unique token appears in the first record.

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7.   (Original) The system of Claim 1, wherein:

each of the plurality of records is associated with at least one document;

the one or more processors are collectively operable to compare a plurality of second records to the first record and determine a plurality of relationship indicators; and

the one or more processors are further collectively operable to:

select one or more of the second records based on the relationship indicators; and

make the documents associated with the one or more second records available to a user.

8.   (Original) The system of Claim 7, wherein the one or more processors are collectively operable to select the one or more second records based on input from the user.

9.   (Original) The system of Claim 1, wherein the one or more processors are collectively operable to allow a user to select the first record, wherein selecting the first record comprises at least one of selecting one of the plurality of records and submitting a document that the one or more processors may use to generate the first record.

10.   (Original) The system of Claim 1, wherein the one or more processors are further collectively operable to generate a plurality of text files, each text file associated with one of a plurality of documents and comprising the at least one token contained in the associated document.

11.   (Original) The system of Claim 10, wherein the one or more processors are collectively operable to generate the plurality of text files by performing at least one of optical character recognition and file conversion on each of the documents.

12.   (Original) The system of Claim 10, wherein the one or more processors are further collectively operable to generate the plurality of records, each record associated with one of the text files and comprising the at least one token contained in the associated text file.

13.   (Original) The system of Claim 12, wherein the one or more processors are collectively operable to generate one of the records by:

identifying one-word tokens in one of the text files, the one-word tokens comprising individual words in the text file;

inserting the one-word tokens into the record;

selecting pairs of one-word tokens in the record, each pair of one-word tokens comprising consecutive one-word tokens in the record;

combining the pairs of one-word tokens to produce two-word tokens; and

inserting the two-word tokens into the record.

14.   (Original) The system of Claim 13, wherein the one or more processors are further collectively operable to ignore at least one stop word in the text file when identifying one-word tokens in one of the text files.

15.   (Original) The system of Claim 12, wherein the one or more processors are further collectively operable to:

replace the tokens in the record with one or more token representations; and

consolidate the record by ensuring that each unique token or token representation appears only once in the record.

16.   (Original) The system of Claim 1, wherein the one or more processors are further collectively operable to receive one or more documents using at least one of an interface coupled to a network, a drive operable to read at least one computer readable medium, and a scanner.

17.   (Original) The system of Claim 1, wherein the one or more processors are further collectively operable to:

receive a query from a user;

identify one or more records that satisfy the query;

identify one or more documents associated with the one or more records; and

make the one or more documents available to the user.

18.   (Original) The system of Claim 1, wherein the one or more processors are further collectively operable to:

generate a token table comprising a plurality of first entries, each first entry comprising one of the tokens, a token representation associated with the token, the weight associated with the token, and a first count value associated with the token, the first count value representing a number of times that the token appears in the plurality of records;

generate a records table comprising a plurality of second entries, each second entry associated with one of the records and comprising one of the token representations and a second count value, the token representation in the second entry associated with one of the tokens contained in the record, the second count value representing a number of times that the token associated with the second entry appears in the record; and

generate a records table index comprising a plurality of third entries, each third entry associated with one of the records and comprising an identification of at least one second entry associated with the record and a record score associated with the record.

19.   (Original) The system of Claim 18, wherein the one or more processors are further collectively operable to convert at least one of the plurality of records, the token table, the records table, and the records table index from a first format to a second format, the second format used by an external system.

20.   (Original) The system of Claim 1, wherein the one or more processors are further collectively operable to categorize each of the records based at least partially on the tokens contained in the records and locations of the tokens in the records.

21.   (Canceled)

22.   (Currently Amended) The system of ~~Claim 21~~ Claim 1, wherein:

a distance between the first point and each of the plurality of points in the particular space defines a distribution having a standard deviation; and

a number of values in the correlithm object associated with one of the tokens may be determined using a formula of:

$$\text{Number of Values} = \lceil \text{Weight}_{\text{Token}} * \text{Standard Deviation} \rceil$$

where Weight$_{\text{Token}}$ represents the weight associated with the token, and Standard Deviation represents the standard deviation of the distribution.

23.   (Canceled)

24.   (Currently Amended)   The system of ~~Claim 23~~ Claim 1, wherein the significance vector comprises a plurality of significance values, each significance value determined using a formula of:

$$\text{Significance Value} = \frac{\text{Weight}_{\text{Token}} * \text{Standard Deviation}}{\text{Number of Values}}$$

where Weight$_{\text{Token}}$ represents the weight associated with the token, Standard Deviation represents the standard deviation of the distribution, and Number of Values represents a number of values defining the first point in the correlithm object.

25.   (Currently Amended) The system of ~~Claim 21~~ Claim 1, wherein:

the correlithm object comprises a first correlithm object, the first correlithm object associated with the significance vector comprising a first significance vector;

the one or more processors are collectively operable to generate a first correlithm object and a first significance vector for each of the tokens; and

the one or more processors are further collectively operable to generate a second correlithm object and a second significance vector associated with the first record, the second correlithm object comprising at least one of the first correlithm objects.

26. (Original) The system of Claim 25, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

a number of first entries in the second correlithm object and a number of second entries in the second significance vector are determined using a formula of:

$$\text{Number of Entries} = \sum_{i=1}^{j} (\text{Maximum Instances}_{\text{Token}_i})$$

where j represents a number of unique tokens contained in the plurality of records, and Maximum Instances$_{\text{Token } i}$ represents a maximum number of times that the ith unique token appears in a single record in the plurality of records.

27. (Original) The system of Claim 26, wherein:

each first entry in the second correlithm object is associated with an instance of one of the tokens;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector; and

the one or more processors are collectively operable to generate the second significance vector by:

determining whether the instance of the token associated with one of the first entries appears in the first record;

inserting one or more non-zero significance values into the second entry associated with the first entry when the instance of the token associated with the first entry appears in the first record; and

inserting one or more zero significance values into the second entry associated with the first entry when the instance of the token associated with the first entry does not appear in the first record.

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28.   (Original) The system of Claim 27, wherein:

the one or more processors are collectively operable to generate a second correlithm object and a second significance vector for each of the first record and at least one second record; and

the relationship indicator associated with one of the second records when compared to the first record is determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i,BS_i} * \left(\text{Stnd. Dist.}_i^2 - \sum_{j=1}^{M}\left(A_j - B_j\right)^2\right)\right)}{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i,AS_i} * \text{Stnd. Dist.}_i^2\right)}$$

where N represents the number of first entries in the second correlithm objects and the number of second entries in the second significance vectors, AS_i represents the significance values in the ith second entry of the second significance vector associated with the first record, BS_i represents the significance values in the ith second entry of the second significance vector associated with the second record, Overlap$_{ASi,BSi}$ and Overlap$_{ASi,ASi}$ each represents an overlap value between the identified significance values in the second significance vectors, Stnd. Dist.$_i$ represents a standard distance associated with the first correlithm objects contained in the ith first entries of the second correlithm objects, M represents the number of values in the first correlithm objects contained in the ith first entries of the second correlithm objects, A_j represents the jth value of the first correlithm object contained in the ith first entry of the second correlithm object associated with the first record, and B_j represents the jth value of the first correlithm object contained in the ith first entry of the second correlithm object associated with the second record.

29.   (Original) The system of Claim 28, wherein Overlap$_{ASi,BSi}$ and Overlap$_{ASi,ASi}$ each comprises one of a minimum of the identified significance values in the second significance vectors and a product of the identified significance values in the second significance vectors.

30. (Original) The system of Claim 25, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

a number of first entries in the second correlithm object and a number of second entries in the second significance vector equal a number of unique tokens in the plurality of records.

31. (Original) The system of Claim 30, wherein:

each first entry in the second correlithm object is associated with one of the unique tokens;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector; and

the one or more processors are collectively operable to generate the second significance vector by:

determining a number of times that the unique token associated with the first entry appears in the first record;

determining a maximum number of times that the unique token associated with the first entry appears in a single record in the plurality of records;

inserting one or more significance values from the first significance vector associated with the unique token into the second entry associated with the first entry when the unique token associated with the first entry appears the maximum number of times in the first record;

inserting one or more scaled significance values from the first significance vector associated with the unique token into the second entry associated with the first entry when the unique token associated with the first entry appears at least once but less than the maximum number of times in the first record; and

inserting one or more zero significance values into the second entry associated with the first entry when the unique token associated with the first entry does not appear in the first record.

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32.   (Original) The system of Claim 1, wherein:

at least one token comprises a first correlithm object; and

at least one of the records comprises a second correlithm object, the second correlithm object comprising at least one of the first correlithm objects.

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33.   (Currently Amended)   A method for identifying relationships between database records, comprising:

determining a weight associated with each of a plurality of tokens, each token contained in at least one of a plurality of records, the plurality of records comprising a first record and at least one second record;

generating a correlithm object associated with at least one of the tokens, the correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points;

generating a significance vector associated with the correlithm object;

comparing at least one second record to the first record; and

determining at least one relationship indicator based on the comparison and at least one of the weights, the at least one relationship indicator identifying a level of relationship between the first record and at least one second record.

34.   (Original)   The method of Claim 33, wherein the weight associated with one of the tokens is determined using a formula of:

$$\text{Weight} = -\log\left(\frac{\text{Count}_{\text{Token}}}{\text{Total}_{\text{Token}}}\right)$$

where $\text{Count}_{\text{Token}}$ represents a number of times that the token appears in the plurality of records, and $\text{Total}_{\text{Tokens}}$ represents a number of times that all tokens appear in the plurality of records.

35.   (Original)   The method of Claim 33, wherein comparing one second record to the first record comprises:

identifying any common tokens, a common token comprising one of the tokens that appears in both records; and

identifying a common count value for each common token, the common count value representing a minimum number of times that the common token appears in either record.

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36.   (Original)   The method of Claim 33, wherein the relationship indicator associated with one of the second records when compared to the first record is determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{j} (\text{Weight}_{\text{Token } i} * \text{Common Count}_{\text{Token } i})}{\text{Score}_{\text{Target Record}}}$$

where j represents a number of unique common tokens that appear in both the first record and the second record, $\text{Weight}_{\text{Token } i}$ represents the weight associated with the ith common token, $\text{Common Count}_{\text{Token } i}$ represents a minimum number of times that the ith common token appears in either the first record or the second record, and $\text{Score}_{\text{First record}}$ represents a record score associated with the first record.

37.   (Original) The method of Claim 36, wherein the record score associated with the first record is determined using a formula of:

$$\text{Record Score} = \sum_{i=1}^{k} \left(\text{Weight}_{\text{Token } k} * \text{Count}_{\text{Token } k} \right)$$

where k represents a number of unique tokens associated with the first record, $\text{Weight}_{\text{Token } k}$ represents the weight associated with the kth unique token, and $\text{Count}_{\text{Token } k}$ represents a number of times that the kth unique token appears in the first record.

38.   (Original) The method of Claim 33, further comprising:

generating a plurality of text files, each text file associated with one of a plurality of documents and comprising the at least one token contained in the associated document; and

generating the plurality of records, each record associated with one of the text files and comprising the at least one token contained in the associated text file.

39.   (Original) The method of Claim 38, wherein generating one of the records comprises:

identifying one-word tokens in one of the text files, the one-word tokens comprising individual words in the text file;

inserting the one-word tokens into the record;

selecting pairs of one-word tokens in the record, each pair of one-word tokens comprising consecutive one-word tokens in the record;

combining the pairs of one-word tokens to produce two-word tokens; and

inserting the two-word tokens into the record.

40.   (Original) The method of Claim 33, further comprising:

generating a token table comprising a plurality of first entries, each first entry comprising one of the tokens, a token representation associated with the token, the weight associated with the token, and a first count value associated with the token, the first count value representing a number of times that the token appears in the plurality of records;

generating a records table comprising a plurality of second entries, each second entry associated with one of the records and comprising one of the token representations and a second count value, the token representation in the second entry associated with one of the tokens contained in the record, the second count value representing a number of times that the token associated with the second entry appears in the record; and

generating a records table index comprising a plurality of third entries, each third entry associated with one of the records and comprising an identification of at least one second entry associated with the record and a record score associated with the record.

41.   (Canceled)

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42. (Currently Amended) The method of ~~Claim 41~~ Claim 33, wherein:

a distance between the first point and each of the plurality of points in the particular space defines a distribution having a standard deviation; and

a number of values in the correlithm object associated with one of the tokens may be determined using a formula of:

$$\text{Number of Values} = \lceil \text{Weight}_{\text{Token}} * \text{Standard Deviation} \rceil$$

where $\text{Weight}_{\text{Token}}$ represents the weight associated with the token, and Standard Deviation represents the standard deviation of the distribution.

43. (Canceled)

44. (Currently Amended) The method of ~~Claim 43~~ Claim 33, wherein the significance vector comprises a plurality of significance values, each significance value determined using a formula of:

$$\text{Significance Value} = \frac{\text{Weight}_{\text{Token}} * \text{Standard Deviation}}{\text{Number of Values}}$$

where $\text{Weight}_{\text{Token}}$ represents the weight associated with the token, Standard Deviation represents the standard deviation of the distribution, and Number of Values represents a number of values defining the first point in the correlithm object.

45. (Currently Amended) The method of ~~Claim 41~~ Claim 33, wherein the correlithm object comprises a first correlithm object, the first correlithm object associated with the significance vector comprising a first significance vector;

wherein a first correlithm object and a first significance vector are generated for each of the tokens; and

further comprising generating a second correlithm object and a second significance vector associated with the first record, the second correlithm object comprising at least one of the first correlithm objects.

46.   (Original) The method of Claim 45, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

a number of first entries in the second correlithm object and a number of second entries in the second significance vector are determined using a formula of:

$$\text{Number of Entries} = \sum_{i=1}^{j} (\text{Maximum Instances}_{\text{Token}_i})$$

where j represents a number of unique tokens contained in the plurality of records, and Maximum Instances$_{\text{Token }i}$ represents a maximum number of times that the ith unique token appears in a single record in the plurality of records.

47.   (Original) The method of Claim 46, wherein:

each first entry in the second correlithm object is associated with an instance of one of the tokens;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector; and

generating the second significance vector comprises:

determining whether the instance of the token associated with one of the first entries appears in the first record;

inserting one or more non-zero significance values into the second entry associated with the first entry when the instance of the token associated with the first entry appears in the first record; and

inserting one or more zero significance values into the second entry associated with the first entry when the instance of the token associated with the first entry does not appear in the first record.

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48.   (Original) The method of Claim 47, wherein:

a second correlithm object and a second significance vector are generated for each of the first record and at least one second record;

the relationship indicator associated with one of the second records when compared to the first record is determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i,BS_i} * \left(\text{Stnd. Dist.}_i{}^2 - \sum_{j=1}^{M}\left(A_j - B_j\right)^2 \right)\right)}{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i,AS_i} * \text{Stnd. Dist.}_i{}^2 \right)}$$

where N represents the number of first entries in the second correlithm objects and the number of second entries in the second significance vectors, AS_i represents the significance values in the ith second entry of the second significance vector associated with the first record, BS_i represents the significance values in the ith second entry of the second significance vector associated with the second record, $\text{Overlap}_{AS_i,BS_i}$ and $\text{Overlap}_{AS_i,AS_i}$ each represents an overlap value between the identified significance values in the second significance vectors, Stnd. Dist.$_i$ represents a standard distance associated with the first correlithm objects contained in the ith first entries of the second correlithm objects, M represents the number of values in the first correlithm objects contained in the ith first entries of the second correlithm objects, A_j represents the jth value of the first correlithm object contained in the ith first entry of the second correlithm object associated with the first record, and B_j represents the jth value of the first correlithm object contained in the ith first entry of the second correlithm object associated with the second record; and

$\text{Overlap}_{AS_i,BS_i}$ and $\text{Overlap}_{AS_i,AS_i}$ each comprises one of a minimum of the identified significance values in the second significance vectors and a product of the identified significance values in the second significance vectors.

49.   (Original) The method of Claim 45, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

a number of first entries in the second correlithm object and a number of second entries in the second significance vector equal a number of unique tokens in the plurality of records.

50.   (Original) The method of Claim 49, wherein:

each first entry in the second correlithm object is associated with one of the unique tokens;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector; and

generating the second significance vector comprises:

determining a number of times that the unique token associated with the first entry appears in the first record;

determining a maximum number of times that the unique token associated with the first entry appears in a single record in the plurality of records;

inserting one or more significance values from the first significance vector associated with the unique token into the second entry associated with the first entry when the unique token associated with the first entry appears the maximum number of times in the first record;

inserting one or more scaled significance values from the first significance vector associated with the unique token into the second entry associated with the first entry when the unique token associated with the first entry appears at least once but less than the maximum number of times in the first record; and

inserting one or more zero significance values into the second entry associated with the first entry when the unique token associated with the first entry does not appear in the first record.

51.   (Original) The method of Claim 33, wherein:

at least one token comprises a first correlithm object; and

at least one of the records comprises a second correlithm object, the second correlithm object comprising at least one of the first correlithm objects.

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52.   (Currently Amended) Software for identifying relationships between database records, the software embodied on at least one computer readable medium and operable when executed to:

determine a weight associated with each of a plurality of tokens, each token contained in at least one of a plurality of records, the plurality of records comprising a first record and at least one second record;

generate a correlithm object associated with at least one of the tokens, the correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points;

generate a significance vector associated with the correlithm object;

compare at least one second record to the first record; and

determine at least one relationship indicator based on the comparison and at least one of the weights, the at least one relationship indicator identifying a level of relationship between the first record and at least one second record.

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53.   (Currently Amended)   A system for identifying relationships between database records, comprising:

means for storing a plurality of records comprising a first record and at least one second record, each record comprising at least one of a plurality of tokens;

means for determining a weight associated with each of the tokens;

means for generating a correlithm object associated with at least one of the tokens, the correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points;

means for generating a significance vector associated with the correlithm object;

means for comparing at least one second record to the first record; and

means for determining at least one relationship indicator based on the comparison and at least one of the weights, the at least one relationship indicator identifying a level of relationship between the first record and at least one second record.

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54.   (Withdrawn)   A system for identifying relationships between database records, comprising:

a memory operable to store a plurality of records, each record comprising at least one of a plurality of tokens; and

one or more processors collectively operable to:

determine a number of times that each token appears in the plurality of records;

determine a number of times that all tokens appear in the plurality of records;

determine a weight associated with each of the tokens, each weight based at least partially on the number of times that one of the tokens appears in the plurality of records and the number of times that all tokens appear in the plurality of records;

generate a token table containing each of the tokens, a token representation associated with each token, and the weight associated with each token;

generate a records table containing one or more token representations associated with the one or more tokens contained in each record, the records table also identifying a number of times that the one or more tokens appear in each record; and

generate a records table index containing a location in the records table associated with each record and a record score associated with each record.

55.   (Withdrawn)   The system of Claim 54, wherein the weight associated with one of the tokens is determined using a formula of:

$$\text{Weight} = -\log\left(\frac{\text{Count}_{\text{Token}}}{\text{Total}_{\text{Token}}}\right)$$

where $\text{Count}_{\text{Token}}$ represents the number of times that the token appears in the plurality of records, and $\text{Total}_{\text{Tokens}}$ represents the number of times that all tokens appear in the plurality of records.

56.   (Withdrawn) The system of Claim 54, wherein the record score associated with one of the records is determined using a formula of:

$$\text{Record Score} = \sum_{i=1}^{k} \left(\text{Weight}_{\text{Token k}} * \text{Count}_{\text{Token k}} \right)$$

where k represents a number of unique tokens associated with the record, $\text{Weight}_{\text{Token k}}$ represents the weight associated with the kth unique token, and $\text{Count}_{\text{Token k}}$ represents a number of times that the kth unique token appears in the record.

57.   (Withdrawn) The system of Claim 54, wherein:

each record is associated with at least one document; and

the one or more processors are collectively operable to:

generate a plurality of text files, each text file associated with one of the documents and comprising the tokens contained in the associated document; and

generate the plurality of records, each record associated with one of the text files and comprising the tokens contained in the associated text file.

58.   (Withdrawn) The system of Claim 57, wherein the one or more processors are collectively operable to generate one of the records by:

identifying one-word tokens in one of the text files, the one-word tokens comprising individual words in the text file;

inserting the one-word tokens in the record;

selecting pairs of one-word tokens in the record, each pair of one-word tokens comprising consecutive one-word tokens in the record;

combining the pairs of one-word tokens to produce two-word tokens; and

inserting the two-word tokens in the record.

59.   (Withdrawn) The system of Claim 54, wherein the token representations comprise correlithm objects, each correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points.

60.   (Withdrawn) The system of Claim 59, wherein:

a distance between the first point and each of the plurality of points in the particular space defines a distribution having a standard deviation; and

a number of values in the correlithm object associated with one of the tokens may be determined using a formula of:

$$\text{Number of Values} = \lceil \text{Weight}_{\text{Token}} * \text{Standard Deviation} \rceil$$

where Weight$_{\text{Token}}$ represents the weight associated with the token, and Standard Deviation represents the standard deviation of the distribution.

61.   (Withdrawn) The system of Claim 59, wherein each token representation further comprises a significance vector.

62.   (Withdrawn) The system of Claim 61, wherein each significance vector comprises a plurality of significance values, each significance value determined using a formula of:

$$\text{Significance Value} = \frac{\text{Weight}_{\text{Token}} * \text{Standard Deviation}}{\text{Number of Values}}$$

where Weight$_{\text{Token}}$ represents the weight associated with the token, Standard Deviation represents the standard deviation of the distribution, and Number of Values represents a number of values defining the first point in the correlithm object.

63.   (Withdrawn) The system of Claim 59, wherein:

the correlithm objects comprises first correlithm objects, each first correlithm object associated with a first significance vector; and

the one or more processors are further collectively operable to generate a second correlithm object and a second significance vector associated with each record, each second correlithm object comprising at least one of the first correlithm objects.

64.   (Withdrawn) The system of Claim 63, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

a number of first entries in the second correlithm object and a number of second entries in the second significance vector are determined using a formula of:

$$\text{Number of Entries} = \sum_{i=1}^{j} (\text{Maximum Instances}_{\text{Token}_i})$$

where j represents a number of unique tokens contained in the plurality of records, and Maximum Instances$_{\text{Token } i}$ represents a maximum number of times that the ith unique token appears in a single record in the plurality of records.

65.   (Withdrawn) The system of Claim 64, wherein:

each first entry in the second correlithm object is associated with an instance of one of the tokens;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector; and

the one or more processors are collectively operable to generate the second significance vector by:

determining whether the instance of the token associated with one of the first entries appears in the first record;

inserting one or more non-zero significance values into the second entry associated with the first entry when the instance of the token associated with the first entry appears in the first record; and

inserting one or more zero significance values into the second entry associated with the first entry when the instance of the token associated with the first entry does not appear in the first record.

66.   (Withdrawn) The system of Claim 63, wherein:

the second correlithm object comprises a plurality of first entries and the second significance vector comprises a plurality of second entries, at least one first entry comprising one of the first correlithm objects; and

a number of first entries in the second correlithm object and a number of second entries in the second significance vector equal a number of unique tokens in the plurality of records.

67.   (Withdrawn) The system of Claim 66, wherein:

each first entry in the second correlithm object is associated with one of the unique tokens;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector; and

the one or more processors are collectively operable to generate the second significance vector by:

determining a number of times that the unique token associated with the first entry appears in the first record;

determining a maximum number of times that the unique token associated with the first entry appears in a single record in the plurality of records;

inserting one or more significance values from the first significance vector associated with the unique token into the second entry associated with the first entry when the unique token associated with the first entry appears the maximum number of times in the first record;

inserting one or more scaled significance values from the first significance vector associated with the unique token into the second entry associated with the first entry when the unique token associated with the first entry appears at least once but less than the maximum number of times in the first record; and

inserting one or more zero significance values into the second entry associated with the first entry when the unique token associated with the first entry does not appear in the first record.

68.   (Withdrawn) The system of Claim 54, wherein:

at least one token comprises a first correlithm object; and

at least one of the records comprises a second correlithm object, the second correlithm object comprising at least one of the first correlithm objects.

69.   (Withdrawn)   A method for identifying relationships between database records, comprising:

determining a number of times that each of a plurality of tokens appears in a plurality of records, each record comprising at least one of the plurality of tokens;

determining a number of times that all tokens appear in the plurality of records;

determining a weight associated with each of the tokens, each weight based at least partially on the number of times that one of the tokens appears in the plurality of records and the number of times that all tokens appear in the plurality of records;

generating a token table containing each of the tokens, a token representation associated with each token, and the weight associated with each token;

generating a records table containing one or more token representations associated with the one or more tokens contained in each record, the records table also identifying a number of times that the one or more tokens appear in each record; and

generating a records table index containing a location in the records table associated with each record and a record score associated with each record.

70.   (Withdrawn)   The method of Claim 69, wherein the weight associated with one of the tokens is determined using a formula of:

$$\text{Weight} = -\log\left(\frac{\text{Count}_{\text{Token}}}{\text{Total}_{\text{Token}}}\right)$$

where $\text{Count}_{\text{Token}}$ represents the number of times that the token appears in the plurality of records, and $\text{Total}_{\text{Tokens}}$ represents the number of times that all tokens appear in the plurality of records.

71.   (Withdrawn)   The method of Claim 69, wherein the record score associated with one of the records is determined using a formula of:

$$\text{Record Score} = \sum_{i=1}^{k} \left(\text{Weight}_{\text{Token } k} * \text{Count}_{\text{Token } k}\right)$$

where k represents a number of unique tokens associated with the record, $\text{Weight}_{\text{Token } k}$ represents the weight associated with the kth unique token, and $\text{Count}_{\text{Token } k}$ represents a number of times that the kth unique token appears in the record.

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72.   (Withdrawn) The method of Claim 69, wherein each record is associated with at least one document; and

further comprising:

generating a plurality of text files, each text file associated with one of the documents and comprising the tokens contained in the associated document; and

generating the plurality of records, each record associated with one of the text files and comprising the tokens contained in the associated text file.

73.   (Withdrawn) The method of Claim 72, wherein generating one of the records comprises:

identifying one-word tokens in one of the text files, the one-word tokens comprising individual words in the text file;

inserting the one-word tokens in the record;

selecting pairs of one-word tokens in the record, each pair of one-word tokens comprising consecutive one-word tokens in the record;

combining the pairs of one-word tokens to produce two-word tokens; and

inserting the two-word tokens in the record.

74.   (Withdrawn) The method of Claim 69, wherein the token representations comprise correlithm objects, each correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points.

75.   (Withdrawn) The method of Claim 74, wherein:

a distance between the first point and each of the plurality of points in the particular space defines a distribution having a standard deviation; and

a number of values in the correlithm object associated with one of the tokens may be determined using a formula of:

Number of Values $= \lceil \text{Weight}_{\text{Token}} * \text{Standard Deviation} \rceil$

where $\text{Weight}_{\text{Token}}$ represents the weight associated with the token, and Standard Deviation represents the standard deviation of the distribution.

76.   (Withdrawn) The method of Claim 74, wherein each token representation further comprises a significance vector.

77.   (Withdrawn) The method of Claim 76, wherein each significance vector comprises a plurality of significance values, each significance value determined using a formula of:

$$\text{Significance Value} = \frac{\text{Weight}_{\text{Token}} * \text{Standard Deviation}}{\text{Number of Values}}$$

where $\text{Weight}_{\text{Token}}$ represents the weight associated with the token, Standard Deviation represents the standard deviation of the distribution, and Number of Values represents a number of values defining the first point in the correlithm object.

78.   (Withdrawn) The method of Claim 74, wherein the correlithm objects comprises first correlithm objects, each first correlithm object associated with a first significance vector; and

further comprising generating a second correlithm object and a second significance vector associated with each record, each second correlithm object comprising at least one of the first correlithm objects.

79.   (Withdrawn) The method of Claim 78, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

a number of first entries in the second correlithm object and a number of second entries in the second significance vector are determined using a formula of:

$$\text{Number of Entries} = \sum_{i=1}^{j} (\text{Maximum Instances}_{\text{Token}_i})$$

where j represents a number of unique tokens contained in the plurality of records, and Maximum Instances$_{\text{Token } i}$ represents a maximum number of times that the ith unique token appears in a single record in the plurality of records.

80.   (Withdrawn) The method of Claim 79, wherein:

each first entry in the second correlithm object is associated with an instance of one of the tokens;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector; and

generating the second significance vector comprises:

determining whether the instance of the token associated with one of the first entries appears in the first record;

inserting one or more non-zero significance values into the second entry associated with the first entry when the instance of the token associated with the first entry appears in the first record; and

inserting one or more zero significance values into the second entry associated with the first entry when the instance of the token associated with the first entry does not appear in the first record.

81.   (Withdrawn) The method of Claim 78, wherein:

the second correlithm object comprises a plurality of first entries and the second significance vector comprises a plurality of second entries, at least one first entry comprising one of the first correlithm objects; and

a number of first entries in the second correlithm object and a number of second entries in the second significance vector equal a number of unique tokens in the plurality of records.

82.   (Withdrawn) The method of Claim 81, wherein:

each first entry in the second correlithm object is associated with one of the unique tokens;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector; and

generating the second significance vector comprises:

determining a number of times that the unique token associated with the first entry appears in the first record;

determining a maximum number of times that the unique token associated with the first entry appears in a single record in the plurality of records;

inserting one or more significance values from the first significance vector associated with the unique token into the second entry associated with the first entry when the unique token associated with the first entry appears the maximum number of times in the first record;

inserting one or more scaled significance values from the first significance vector associated with the unique token into the second entry associated with the first entry when the unique token associated with the first entry appears at least once but less than the maximum number of times in the first record; and

inserting one or more zero significance values into the second entry associated with the first entry when the unique token associated with the first entry does not appear in the first record.

83.   (Withdrawn) The method of Claim 69, wherein:

at least one token comprises a first correlithm object; and

at least one of the records comprises a second correlithm object, the second correlithm object comprising at least one of the first correlithm objects.

84.　(Withdrawn)　Software for identifying relationships between database records, the software embodied on at least one computer readable medium and operable when executed to:

determine a number of times that each of a plurality of tokens appears in a plurality of records, each record comprising at least one of the plurality of tokens;

determine a number of times that all tokens appear in the plurality of records;

determine a weight associated with each of the tokens, each weight based at least partially on the number of times that one of the tokens appears in the plurality of records and the number of times that all tokens appear in the plurality of records;

generate a token table containing each of the tokens, a token representation associated with each token, and the weight associated with each token;

generate a records table containing one or more token representations associated with the one or more tokens contained in each record, the records table also identifying a number of times that the one or more tokens appear in each record; and

generate a records table index containing a location in the records table associated with each record and a record score associated with each record.

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85.　(Withdrawn)　A system for identifying relationships between database records, comprising:

means for storing a plurality of records, each record comprising at least one of a plurality of tokens;

means for determining a number of times that each token appears in the plurality of records;

means for determining a number of times that all tokens appear in the plurality of records;

means for determining a weight associated with each of the tokens, each weight based at least partially on the number of times that one of the tokens appears in the plurality of records and the number of times that all tokens appear in the plurality of records;

means for generating a token table containing each of the tokens, a token representation associated with each token, and the weight associated with each token;

means for generating a records table containing one or more token representations associated with the one or more tokens contained in each record, the records table also identifying a number of times that the one or more tokens appear in each record; and

means for generating a records table index containing a location in the records table associated with each record and a record score associated with each record.

86.   (Withdrawn)   A system for identifying relationships between database records, comprising:

a memory operable to store:

a token table containing each of a plurality of tokens, a token representation associated with each token, and a weight associated with each token;

a records table containing one or more token representations associated with one or more tokens contained in each of a first record and a second record, the records table also identifying a number of times that the one or more tokens appear in each record; and

a records table index containing a location in the records table associated with each record and a record score associated with each record; and

one or more processors collectively operable to:

identify the one or more token representations associated with the first record and the one or more token representations associated with the second record using the records table index and the records table; and

determine a relationship indicator associated with the second record using the identified token representations, the record score associated with the first record, and at least one of the weights associated with the token representations, the at least one relationship indicator identifying a level of relationship between the first record and at least one second record.

87.   (Withdrawn) The system of Claim 86, wherein the weight associated with one of the tokens is determined using a formula of:

$$\text{Weight} = -\log\left(\frac{\text{Count}_{\text{Token}}}{\text{Total}_{\text{Token}}}\right)$$

where $\text{Count}_{\text{Token}}$ represents the number of times that the token appears in the plurality of records, and $\text{Total}_{\text{Tokens}}$ represents the number of times that all tokens appear in the plurality of records.

88. (Withdrawn) The system of Claim 86, wherein the record score associated with the first record is determined using a formula of:

$$\text{Record Score} = \sum_{i=1}^{k} \left(\text{Weight}_{\text{Token } k} * \text{Count}_{\text{Token } k} \right)$$

where k represents a number of unique tokens associated with the first record, $\text{Weight}_{\text{Token } k}$ represents the weight associated with the kth unique token, and $\text{Count}_{\text{Token } k}$ represents a number of times that the kth unique token appears in the first record.

89. (Withdrawn) The system of Claim 86, wherein the one or more processors are further collectively operable to:

identify any common tokens, a common token comprising one of the tokens that appears in both the first record and the second record; and

identify a common count value for each common token, the common count value representing a minimum number of times that the common token appears in either the first record or the second record.

90. (Withdrawn) The system of Claim 89, wherein the relationship indicator associated with the second record when compared to the first record is determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{j} \left(\text{Weight}_{\text{Token } i} * \text{Common Count}_{\text{Token } i} \right)}{\text{Score}_{\text{Target Record}}}$$

where j represents a number of common tokens, $\text{Weight}_{\text{Token } i}$ represents the weight associated with the ith common token, $\text{Common Count}_{\text{Token } i}$ represents the common count value associated with the ith common token, and $\text{Score}_{\text{First record}}$ represents the record score associated with the first record.

91.   (Withdrawn) The system of Claim 86, wherein:

a plurality of second records are each associated with at least one document;

the one or more processors are collectively operable to determine a plurality of relationship indicators associated with the plurality of second records; and

the one or more processors are further collectively operable to:

select one or more of the second records based on the relationship indicators; and

make the documents associated with the one or more second records available to a user.

92.   (Withdrawn) The system of Claim 86, wherein the one or more processors are collectively operable to allow a user to select the first record, wherein selecting the first record comprises at least one of selecting one of the plurality of records and submitting a document that the one or more processors may use to generate the first record.

93.   (Withdrawn) The system of Claim 86, wherein the one or more processors are further collectively operable to:

receive a query from a user;

identify one or more records that satisfy the query;

identify one or more documents associated with the one or more records; and

make the one or more documents available to the user.

94.   (Withdrawn) The system of Claim 86, wherein:

a first correlithm object and a first significance vector are associated with each of the tokens, each first correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points; and

a second correlithm object and a second significance vector are associated with each of the first record and the second record, each second correlithm object comprising at least one of the first correlithm objects.

95.   (Withdrawn) The system of Claim 94, wherein:

a distance between one of the first points and each of the plurality of points in one of the particular spaces defines a distribution having a standard deviation; and

a number of values in one of the first correlithm objects associated with one of the tokens may be determined using a formula of:

$$\text{Number of Values} = \lceil \text{Weight}_{\text{Token}} * \text{Standard Deviation} \rceil$$

where Weight$_{\text{Token}}$ represents the weight associated with the token, and Standard Deviation represents the standard deviation of the distribution.

96.   (Withdrawn) The system of Claim 95, wherein one of the first significance vectors comprises a plurality of significance values, each significance value determined using a formula of:

$$\text{Significance Value} = \frac{\text{Weight}_{\text{Token}} * \text{Standard Deviation}}{\text{Number of Values}}.$$

97.   (Withdrawn) The system of Claim 94, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

each first entry in the second correlithm objects is associated with an instance of one of the tokens.

98.   (Withdrawn) The system of Claim 94, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

each first entry in the second correlithm objects is associated with one of the unique tokens.

99.   (Withdrawn) The system of Claim 94, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector;

the relationship indicator associated with the second record when compared to the first record is determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i,BS_i} * \left(\text{Stnd. Dist.}_i^{\,2} - \sum_{j=1}^{M}\left(A_j - B_j\right)^2\right)\right)}{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i,AS_i} * \text{Stnd. Dist.}_i^{\,2}\right)}$$

where N represents the number of first entries in the second correlithm objects and the number of second entries in the second significance vectors, AS_i represents significance values in the ith second entry of the second significance vector associated with the first record, BS_i represents significance values in the ith second entry of the second significance vector associated with the second record, $\text{Overlap}_{AS_i,BS_i}$ and $\text{Overlap}_{AS_i,AS_i}$ each represents an overlap value between the identified significance values in the second significance vectors, Stnd. Dist.$_i$ represents a standard distance associated with the first correlithm objects contained in the ith first entries of the second correlithm objects, M represents the number of values in the first correlithm objects contained in the ith first entries of the second correlithm objects, A_j represents the jth value of the first correlithm object contained in the ith first entry of the second correlithm object associated with the first record, and B_j represents the jth value of the first correlithm object contained in the ith first entry of the second correlithm object associated with the second record; and

wherein $\text{Overlap}_{AS_i,BS_i}$ and $\text{Overlap}_{AS_i,AS_i}$ each comprises one of a minimum of the identified significance values in the second significance vectors and a product of the identified significance values in the second significance vectors.

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100.   (Withdrawn) The system of Claim 86, wherein:

at least one token comprises a first correlithm object; and

at least one of the records comprises a second correlithm object, the second correlithm object comprising at least one of the first correlithm objects.

101.   (Withdrawn)   A method for identifying relationships between database records, comprising:

identifying one or more token representations associated with a first record and one or more token representations associated with a second record using a records table index and a records table, the records table containing the one or more token representations associated with one or more tokens contained in each of the records, the records table also identifying a number of times that the one or more tokens appear in each record, the records table index containing a location in the records table associated with each record and a record score associated with each record; and

determining a relationship indicator associated with the second record using the identified token representations, the record score associated with the first record, and at least one of a plurality of weights associated with the token representations, the at least one relationship indicator identifying a level of relationship between the first record and at least one second record.

102.   (Withdrawn)   The method of Claim 101, wherein the weight associated with one of the tokens is determined using a formula of:

$$Weight = -\log\left(\frac{Count_{Token}}{Total_{Token}}\right)$$

where $Count_{Token}$ represents the number of times that the token appears in the plurality of records, and $Total_{Tokens}$ represents the number of times that all tokens appear in the plurality of records.

103.   (Withdrawn)   The method of Claim 101, wherein the record score associated with the first record is determined using a formula of:

$$Record\ Score = \sum_{i=1}^{k}\left(Weight_{Token\ k} * Count_{Token\ k}\right)$$

where k represents a number of unique tokens associated with the first record, $Weight_{Token\ k}$ represents the weight associated with the kth unique token, and $Count_{Token\ k}$ represents a number of times that the kth unique token appears in the first record.

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104.   (Withdrawn) The method of Claim 101, further comprising:

identifying any common tokens, a common token comprising one of the tokens that appears in both the first record and the second record; and

identifying a common count value for each common token, the common count value representing a minimum number of times that the common token appears in either the first record or the second record.

105.   (Withdrawn) The method of Claim 104, wherein the relationship indicator associated with the second record when compared to the first record is determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{j} (\text{Weight}_{\text{Token } i} * \text{Common Count}_{\text{Token } i})}{\text{Score}_{\text{Target Record}}}$$

where j represents a number of common tokens, $\text{Weight}_{\text{Token } i}$ represents the weight associated with the ith common token, $\text{Common Count}_{\text{Token } i}$ represents the common count value associated with the ith common token, and $\text{Score}_{\text{First record}}$ represents the record score associated with the first record.

106.   (Withdrawn) The method of Claim 101, wherein:

a plurality of second records are each associated with at least one document;

a plurality of relationship indicators associated with the plurality of second records are determined; and

further comprising:

selecting one or more of the second records based on the relationship indicators; and

making the documents associated with the one or more second records available to a user.

107.   (Withdrawn) The method of Claim 101, wherein:

a first correlithm object and a first significance vector are associated with each of the tokens, each first correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points; and

a second correlithm object and a second significance vector are associated with each of the first record and the second record, each second correlithm object comprising at least one of the first correlithm objects.

108.   (Withdrawn) The method of Claim 107, wherein:

a distance between one of the first points and each of the plurality of points in one of the particular spaces defines a distribution having a standard deviation;

a number of values in one of the first correlithm objects associated with one of the tokens may be determined using a formula of:

$$\text{Number of Values} = \lceil \text{Weight}_{\text{Token}} \ast \text{Standard Deviation} \rceil$$

where $\text{Weight}_{\text{Token}}$ represents the weight associated with the token, and Standard Deviation represents the standard deviation of the distribution; and

one of the first significance vectors comprises a plurality of significance values, each significance value determined using a formula of:

$$\text{Significance Value} = \frac{\text{Weight}_{\text{Token}} \ast \text{Standard Deviation}}{\text{Number of Values}}.$$

109.   (Withdrawn) The method of Claim 107, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

each first entry in the second correlithm objects is associated with an instance of one of the tokens.

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110.   (Withdrawn) The method of Claim 107, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects; and

each first entry in the second correlithm objects is associated with one of the unique tokens.

111.   (Withdrawn) The method of Claim 107, wherein:

the second correlithm object comprises one or more first entries and the second significance vector comprises one or more second entries, at least one first entry comprising one of the first correlithm objects;

each first entry in the second correlithm object is also associated with one second entry in the second significance vector;

the relationship indicator associated with the second record when compared to the first record is determined using a formula of:

$$
\text{Relationship Indicator} = \frac{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i, BS_i} * \left(\text{Stnd. Dist.}_i{}^2 - \sum_{j=1}^{M}\left(A_j - B_j\right)^2\right)\right)}{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i, AS_i} * \text{Stnd. Dist.}_i{}^2\right)}
$$

where N represents the number of first entries in the second correlithm objects and the number of second entries in the second significance vectors, AS_i represents significance values in the ith second entry of the second significance vector associated with the first record, BS_i represents significance values in the ith second entry of the second significance vector associated with the second record, $\text{Overlap}_{AS_i,BS_i}$ and $\text{Overlap}_{AS_i,AS_i}$ each represents an overlap value between the identified significance values in the second significance vectors, Stnd. Dist.$_i$ represents a standard distance associated with the first correlithm objects contained in the ith first entries of the second correlithm objects, M represents the number of values in the first correlithm objects contained in the ith first entries of the second correlithm objects, A_j represents the jth value of the first correlithm object contained in the ith first entry of the second correlithm object associated with the first record, and B_j represents the jth value of the first correlithm object contained in the ith first entry of the second correlithm object associated with the second record; and

wherein $\text{Overlap}_{AS_i,BS_i}$ and $\text{Overlap}_{AS_i,AS_i}$ each comprises one of a minimum of the identified significance values in the second significance vectors and a product of the identified significance values in the second significance vectors.

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112.   (Withdrawn) The method of Claim 101, wherein:

at least one token comprises a first correlithm object; and

at least one of the records comprises a second correlithm object, the second correlithm object comprising at least one of the first correlithm objects.

113.   (Withdrawn) Software for identifying relationships between database records, the software embodied on at least one computer readable medium and operable when executed to:

identify one or more token representations associated with a first record and one or more token representations associated with a second record using a records table index and a records table, the records table containing the one or more token representations associated with one or more tokens contained in each of the records, the records table also identifying a number of times that the one or more tokens appear in each record, the records table index containing a location in the records table associated with each record and a record score associated with each record; and

determine a relationship indicator associated with the second record using the identified token representations, the record score associated with the first record, and at least one of a plurality of weights associated with the token representations, the at least one relationship indicator identifying a level of relationship between the first record and at least one second record.

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114. (Withdrawn) A system for identifying relationships between database records, comprising:

means for identifying one or more token representations associated with a first record and one or more token representations associated with a second record using a records table index and a records table, the records table containing the one or more token representations associated with one or more tokens contained in each of the records, the records table also identifying a number of times that the one or more tokens appear in each record, the records table index containing a location in the records table associated with each record and a record score associated with each record; and

means for determining a relationship indicator associated with the second record using the identified token representations, the record score associated with the first record, and at least one of a plurality of weights associated with the token representations, the at least one relationship indicator identifying a level of relationship between the first record and at least one second record.

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115.   (Currently Amended)   A method for identifying relationships between database records, comprising:

communicating at least one of one or more documents, one or more text files, and one or more records to a server, each of the at least one of the documents, the text files, and the records comprising at least one of a plurality of tokens; and

wherein the server is operable to:

determine a weight associated with each of the tokens;

generate a correlithm object associated with at least one of the tokens, the correlithm object comprising a plurality of values defining a first point in a particular space, the particular space defined by a plurality of dimensions and including a plurality of points;

generate a significance vector associated with the correlithm object;

compare two of the at least one of the documents, the text files and the records; and

determine a relationship indicator based on the comparison and at least one of the weights, the at least one relationship indicator identifying a level of relationship between the two of the at least one of the documents, the text files and the records.

116.   (Withdrawn)   A method for identifying relationships between database records, comprising:

communicating at least one of one or more documents, one or more text files, and one or more records to an indexing engine, each of the at least one of the documents, the text files, and the records comprising at least one of a plurality of tokens; and

wherein the indexing engine is operable to:

determine a number of times that each token appears in the at least one of the documents, the text files, and the records;

determine a number of times that all tokens appear in the at least one of the documents, the text files, and the records;

determine a weight associated with each of the tokens, each weight based at least partially on the number of times that one of the tokens appears in the at least one of the documents, the text files, and the records and the number of times that all tokens appear in the at least one of the documents, the text files, and the records;

generate a token table containing each of the tokens, a token representation associated with each token, and the weight associated with each token;

generate a records table containing one or more token representations associated with the one or more tokens contained in each of the at least one of the documents, the text files, and the records, the records table also identifying a number of times that the one or more tokens appear in each of the at least one of the documents, the text files, and the records; and

generate a records table index containing a location in the records table associated with each of the at least one of the documents, the text files, and the records and a score associated with each of the at least one of the documents, the text files, and the records.

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117. (Withdrawn) A method for identifying relationships between database records, comprising:

selecting a first record in a plurality of records, each record comprising at least one of a plurality of tokens, wherein selecting the first record comprises at least one of selecting one of the plurality of records and submitting a document to a server that the server may use to generate the first record; and

wherein the server is operable to:

compare the first record to at least one other of the plurality of records; and

determine at least one relationship indicator based on the comparison and at least one of a plurality of weights associated with the tokens, the at least one relationship indicator identifying a level of relationship between the first record and at least one other record.

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118.   (Withdrawn)   A method for identifying relationships between database records, comprising:

storing a first correlithm object and second correlithm object, the first and second correlithm objects each comprising a plurality of first entries, each first entry comprising one or more values;

storing a first significance vector and a second significance vector, the first and second significance vectors each comprising a plurality of second entries, each second entry comprising one or more significance values; and

determining a relationship indicator associated with the first and second correlithm objects, the relationship indicator determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{N} \left(\text{Overlap}_{AS_i,BS_i} * \left(\text{Stnd. Dist.}_i^2 - \sum_{j=1}^{M} \left(A_j - B_j \right)^2 \right) \right)}{\sum_{i=1}^{N} \left(\text{Overlap}_{AS_i,AS_i} * \text{Stnd. Dist.}_i^2 \right)}$$

where N represents a number of first entries in the first and second correlithm objects, AS_i represents the significance values in the ith second entry of the first significance vector, BS_i represents the significance values in the ith second entry of the second significance vector, $\text{Overlap}_{AS_i,BS_i}$ and $\text{Overlap}_{AS_i,AS_i}$ each represents one of a minimum and a product of the identified significance values, Stnd. Dist.$_i$ represents a standard distance associated with the ith first entries of the first and second correlithm objects, M represents a number of values in the ith first entry of the first and second correlithm objects, A_j represents the jth value in the ith first entry of the first correlithm object, and B_j represents the jth value in the ith first entry of the second correlithm object.

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119.   (Withdrawn)   A method for identifying relationships between database records, comprising:

storing a first correlithm object and a first significance vector, the first correlithm object comprising a plurality of first values, the first significance vector comprising a plurality of first significance values;

storing a second correlithm object and a second significance vector, the second correlithm object comprising a plurality of second values, the second significance vector comprising a plurality of second significance values;

determining a relationship indicator associated with the first and second correlithm objects, the relationship indicator determined using a formula of:

$$\text{Relationship Indicator} = \frac{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i,BS_i} * \left(\frac{1}{6} - (A_i - B_i) \right)^2 \right)}{\sum_{i=1}^{N}\left(\text{Overlap}_{AS_i,AS_i} * \frac{1}{6} \right)}$$

where N represents a number of first and second values in the first and second correlithm objects, AS_i represents the ith first significance value in the first significance vector, BS_i represents the ith second significance value in the second significance vector, $\text{Overlap}_{ASi,BSi}$ and $\text{Overlap}_{ASi,ASi}$ each represents one of a minimum and a product of the identified significance values, A_i represents the ith first value of the first correlithm object, and B_i represents the ith second value of the second correlithm object.